

Please delete the paragraph on page 8, lines 21 to 26, and replace it with the following paragraph:

A2 As can be seen in Figure 4, the cavity point of the boundary layer for the cut-off portion 4a of the air pipe is fixed. Therefore, the pressures of both liquid and air are stabilized. And the fact that the open portion 4a of the pipe is large will mean that the air pressure exiting the pipe is reduced.

Please delete the paragraph on page 15, lines 18 to 24, and replace it with the following paragraph:

A3 In this embodiment, then, the end 4a of air pipe 4 is half cut away. Its rear portion 41, which faces the current in branch pipe 3, is streamlined. Its surface or cavity 41a, which is shown in Figure 4 and faces downstream, is cut away to form a large opening across the entire width of the pipe. Thus the air in branch pipe 3 stabilizes the cavity and minimizes pressure fluctuations in the liquid. Erosion of the pipe is suppressed.

Please delete the paragraph on page 16, lines 8 to 16, and replace it with the following paragraph:

A4 Figures 5 and 6 illustrate the configuration of the third preferred embodiment of this invention. Figure 7 (A) illustrates what goes on in branch pipe 3 just before liquid-vapor mixture 12 is formed from the air admitted via air pipe 4 and absorption liquid 11, which is passing from the constricted state it experienced in negative pressure region 6, the region created by orifice 5 having a diameter d, to an expanded state. Figure 7 (B) illustrates how the pressure changes in negative pressure region 6.

Please delete the paragraph on page 16, lines 23 to 29, and replace it with the following paragraph:

Branch pipe 3 branches downstream from circulation pump 53, which is in distribution pipe 55, as is shown in Figure 15. Branch pipe 3 is extended into collection tank 2. The absorption liquid is discharged and circulated into the tank from the end 3a of branch pipe 3. The orifice 5 is created in a straight portion of branch pipe 3 upstream from end 3a. Air pipe 4 opens into the negative pressure region 6 created by the orifice 5.

Please delete the paragraph on page 16, line 30 to page 17, line 6, and replace it with the following paragraph:

The air pipe 4 should be installed (i.e., it should introduce air) at a point which is between 3D and 10D upstream from the end 3a of branch pipe 3. The air 10 to be used for oxidation is automatically sucked from air pipe 4 using the suction generated in negative pressure region 6. The cavity eddies generated in region 6 pick up the air so that by the time liquid 11 has passed from its constricted to its expanded state, the air is confluent with it, thus forming a confluent liquid-vapor mixture 12.

Please delete the paragraph on page 17, lines 7 to 19, and replace it with the following paragraph:

As can be seen in Figures 7(A) and 7(B), the absorption liquid 11 which passes through the orifice 5 begins to expand after generating negative pressure region 6. The instantaneous pressure reaches point 7 and reverts to its original pulse state. During this period, the air 10 which is sucked in forms a liquid-vapor mixture 12, in which the air converts to tiny bubbles as it shears. This mixture is discharged into collection tank 2 through the end 3a of branch pipe 3 in the form of a jet. Once the jet has conveyed the mixture to a given location in collection tank 2, a rising current is generated. This keeps the collected liquid in a constant state of